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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/653,672

09/02/2003

Henry Wong

4584

23616

7590

08/09/2006

LAW OFFICES OF CLEMENT CHENG  
17220 NEWHOPE STREET #127  
FOUNTAIN VALLEY, CA 92708

EXAMINER

BAE, JI H

ART UNIT

PAPER NUMBER

2115

DATE MAILED: 08/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/653,672

Applicant(s)

WONG ET AL.

Examiner

Ji H. Bae

Art Unit

2115

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The bulk of applicant's disclosure pertains to the operation of the digital logic circuits shown in Fig. 1 and Fig. 2. However, applicant's disclosure appears primarily to be concerned with describing the behavior of the constituent gates in each of the circuits. Such behavior is well-known to those of ordinary skill in the art, and would have been readily discernable from the diagrams themselves. As a result, most of applicant's disclosure amounts to little more than a verbalized truth table for the various gates, and does not adequately explain how applicant's invention would be used. The section of applicant's disclosure found on page 4, lines 4-11 is a typical example.

Applicant's apparent objective is to provide an "auto power saving device for a multi-channel transceiver" [claim 1] and a "connection detection circuit with a Reset-Set Latch, in which it detects the connectivity between two systems or circuits" [page 2-lines 15-19]. However, a disproportionate amount of applicant's disclosure is used to explain obvious

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concepts (e.g. behavior of a NAND gate), with only broad and cursory explanations of how the disclosed circuits accomplish the stated goals within a larger system. For example, there is no explanation given for the nature of the input signals 10 and 120 in Fig. 1, other than that they indicate the input status of the connected device [page 3, lines 18-21].

Regarding claims 2, 8, and 14, the claims recite that "all NAND gates have three inputs". However, applicant's specification does not teach this. Although applicant's specification does teach that some NAND gates may have three inputs, applicant's specification does not require that all NAND gates have three inputs, and in some embodiments, specifically teaches away from this [Fig. 2, only NAND gate for tier 420 has three inputs].

Claim 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 7, and 13, it is unclear how applicant's device and method accomplishes the claimed objective of auto power savings. Applicant's claims recite a device and method that merely results in an output signal. There is nothing in the claims that teaches a power saving function.

Regarding claims 3, 9, and 15, applicant has recited "the first tier NAND gate" in lines 1 and 2. There is insufficient antecedent basis for this limitation in the claim. Applicant has not previously recited a "first tier NAND gate", nor has applicant designated any of the previously recited NAND gates as a "first tier" gate. Additionally, there is no teaching of an extra input in applicant's specification.

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Regarding claims 4, 10, and 16, it is unclear which NAND gates (one, some, or all) are being referred to. Additionally, applicant's specification does not teach "extra inputs" or "open inputs" in the NAND gates.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1, 7, and 13 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1, 7, and 13 recite a device and method that lacks a useful, concrete, and tangible result. The claims recite a device and method for auto power saving in a multi-channel receiver. However, the device and method fails to accomplish the claimed objective, and merely recites an output signal as the result/output of the method/device. There is nothing in the claims that teaches a power saving function.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Allen, U.S. Patent No. 5,649,210;

Allen et al., U.S. Patent No. 6,000,003;

Allen et al., U.S. Patent No. 5,799,194;

Chan et al., U.S. Patent No. 6,378,026;

Fujimoto, U.S. Patent No. 6,104,937;

Mecier et al., U.S. Patent Application Publication No. 2001/0054928 A1;

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Mitarashi, U.S. Patent Application Publication No. 6,473,359 B1;


Alon et al., U.S. Patent No. 6,642,760 B1.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ji H. Bae whose telephone number is 571-272-7181. The examiner can normally be reached on Monday-Friday, 10 am to 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Lee can be reached on 571-272-3667. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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